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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,361	01/23/2002	Dominicus Martinus Wilhelmus Leenaerts	NL 010030	9266

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

TRA, ANH QUAN

ART UNIT PAPER NUMBER

2816

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/055,361

Applicant(s)

LEENAERTS ET AL.

Examiner

Quan Tra

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This office action is in response to the amendment filed 06/09/2003. The rejection in previous office action is maintained.

#### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Bhanari (USP 6400217).

As to claim 1, Bhandari discloses in figure 4 a filter provided with field effect (FET) capacitors (MnAn, MnBn; MnCn, MnDn...) arranged for controlling their respective capacity values, each such FET capacitor (MnAn, MnBn; MnCn, MnDn...) having a source and drain, characterized in that the source and the drain of each FET capacitor (MnAn, MnBn; MnCn, MnDn...) are coupled to one another, the filter including an arrangement for turning the filter by selectively controlling the voltage dependent capacitor values of the FET capacitors [signals VC1-VCn are complement of signals nVC1-nVCn (column 9, lines 13-14). Therefore, the selected pair transistors of the transistors M1A-MnA and M1B-MnB are turned on, the corresponding pair of FET capacitors (MnAn, MnBn; MnCn, MnDn...) are also selected and provide additional capacitance coupled in series with capacitors (C2, C3, Cn). Thus, the filter

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frequency range of the filter circuit figure 4 also determined by the additional capacitances that coupled in series with capacitors (C2, C3, Cn)].

As to claim 2, figure 4 shows each FET capacitor (MnAn, MnBn; MnCn, MnDn) has a control input (gate) for voltage dependent capacity value control.

As to claim 3, it is inherent that the tuning arrangement is provided with a control means (circuit, not shown, that generating signals nVC4 and nRddel2) coupled to FET capacitor control inputs.

As to claim 4, figure 4 shows the FET capacitors (MnAn, MnBn; MnCn, MnDn) are split in equally controlled pairs of FET capacitors.

As to claim 5, figure 4 shows that the filter is built as a symmetrical filter having symmetrical input (folf, foln) and symmetrical output (Lpfn, Lpfp).

As to claim 6, figure 4 shows two or more FET capacitors (MnAn, MnBn; MnCn, MnDn) are connected in series.

As to claim 7, figure 4 shows the FET capacitors (MnAn, MnBn; MnCn, MnDn) are metal oxide semiconductor (MOSFET) capacitors.

As to claim 8, figure 2 shows a transmitter, receiver, or transiver having filter of figure 4 (claim 1) which the filter figure 4 is provided with field effect (FET) capacitor (MnAn, MnBn; MnCn, MnDn) arranged for controlling their respective capacity values, each such FET capacitor (MnAn, MnBn; MnCn, MnDn) having source and drain, characterized in that the source and the drain of each FET capacitor (MnAn, MnBn; MnCn, MnDn) are coupled to one another, the filter including an arrangement for tuning the filter by selectively controlling the voltage dependent capacitor values of the FET capacitors [signals VC1-VCn are complement of signals nVC1-

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nVCn (column 9, lines 13-14). Therefore, the selected pair transistors of the transistors M1A-MnA and M1B-MnB are turned on, the corresponding pair of FET capacitors (MnAn, MnBn; MnCn, MnDn...) are also selected and provide additional capacitance coupled in series with capacitors (C2, C3, Cn). Thus, the filter frequency range of the filter circuit figure 4 also determined by the additional capacitances that coupled in series with capacitors (C2, C3, Cn)].

As to claim 9, figure 4 shows an input (VN) to the filter is coupled to a series arrangement of pairs of FET capacitors.

As to claim 10, figure 4 shows the series arrangement of pairs of the FET capacitors are split in equally controlled pairs of the FET capacitors.

As to claim 11, the circuit figure 4 having a decoder (circuit, not shown, that provide signals VC1-VCn and nVC1-nVCn) coupled to the gate of each of the FET capacitors.

### ***Response to Arguments***

3. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that "In Bhandari, the FET compensation capacitors are not used to tune the LPF 135 as claimed in the present patent application". The Examiner respectfully disagrees. When the selected pair transistors of the transistors M1A-MnA and M1B-MnB are turned on, the corresponding pair of FET capacitors (MnAn, MnBn; MnCn, MnDn...) are also selected and provide additional capacitance coupled in series with capacitors (C2, C3, Cn). Thus, the filter frequency range of the filter circuit figure 4 also determined by the additional capacitances that coupled in series with capacitors (C2, C3, Cn).

*Conclusion*

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are cited as interest because they show some circuits analogous to the claimed invention.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quan Tra whose telephone number is 703-308-6174. The examiner can normally be reached on 8:00 A.M.-5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

A handwritten signature in black ink, appearing to be 'QT', with a long horizontal line extending from the top right of the signature.

QT  
July 24, 2003

A handwritten signature in black ink, appearing to be 'Terry D. Cunningham', written over a printed name and title.

Terry D. Cunningham  
Primary Examiner